618-10 Burial Ground Remediation Progress Update

Bryan Foley
Richland Operations Office

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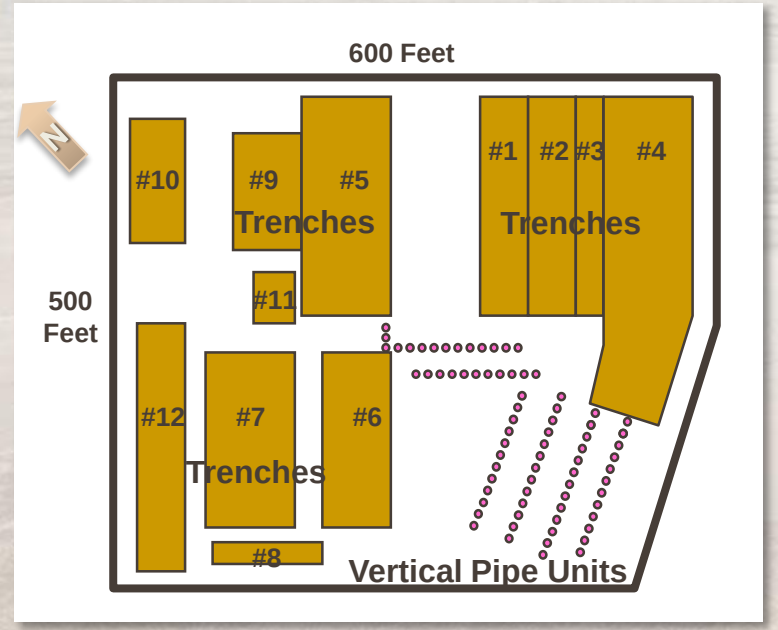
Aerial View of 618-10 Burial Ground

Overview of 618-10 Burial Ground

Initial Design:

- 12 discrete trenches at 20 to 25-foot depth; 126,505 bank cubic meters
- 2,254 drums (972 concrete-lined, 178 depleted uranium black oxide, 537 depleted uranium chips and oil, 47 zirconium chips, 40 thorium, 480 misc.)
- Miscellaneous wastes such as gloveboxes and process equipment
- 94 vertical pipe units (VPUs)



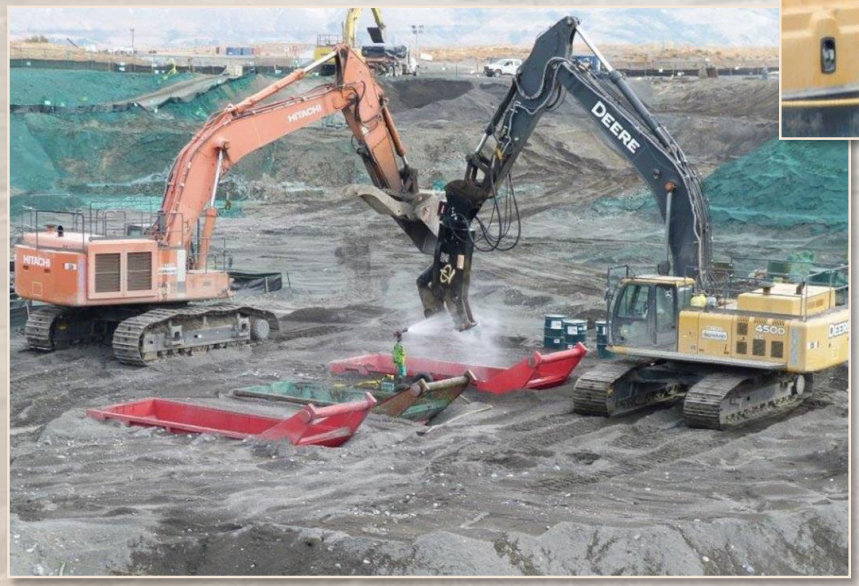
Trench Status

- Approximately 1,600 drums retrieved. Several hundred drums remain; estimate based on ground-penetrating radar (GPR) and field observations
- Shipped more than 321,229 tons of material to the Environmental Restoration Disposal Facility (ERDF)
- Concrete-shielded waste drums containing high dose items are being processed in grout in trenches at 618-10

Trench Status (cont'd)

- Trenches are deeper than historical documents indicated
- Excavation scheduled for completion by end of 3rd quarter of FY16, depending on extent of contamination

A drum punch facility is used to evaluate excavated drums



Processing concrete drums at the 618-10 Burial Ground

Contamination Event in November

- Contamination found near work boundaries after processing concrete-shielded waste drums on November 16
- Per protocol, at the end of the work day and before the forecasted winds the next day, workers stabilized the burial ground with fixative
- November 17 wind storm – winds in excess of 70 mph
- Per protocol, after the storm, workers surveyed the area to verify containment; discovered and reported specks of contamination outside of the fenced trench area
- Expanded the survey area for contamination. As specks were found, they were retrieved for disposal at ERDF
- Lessons learned
- Path forward

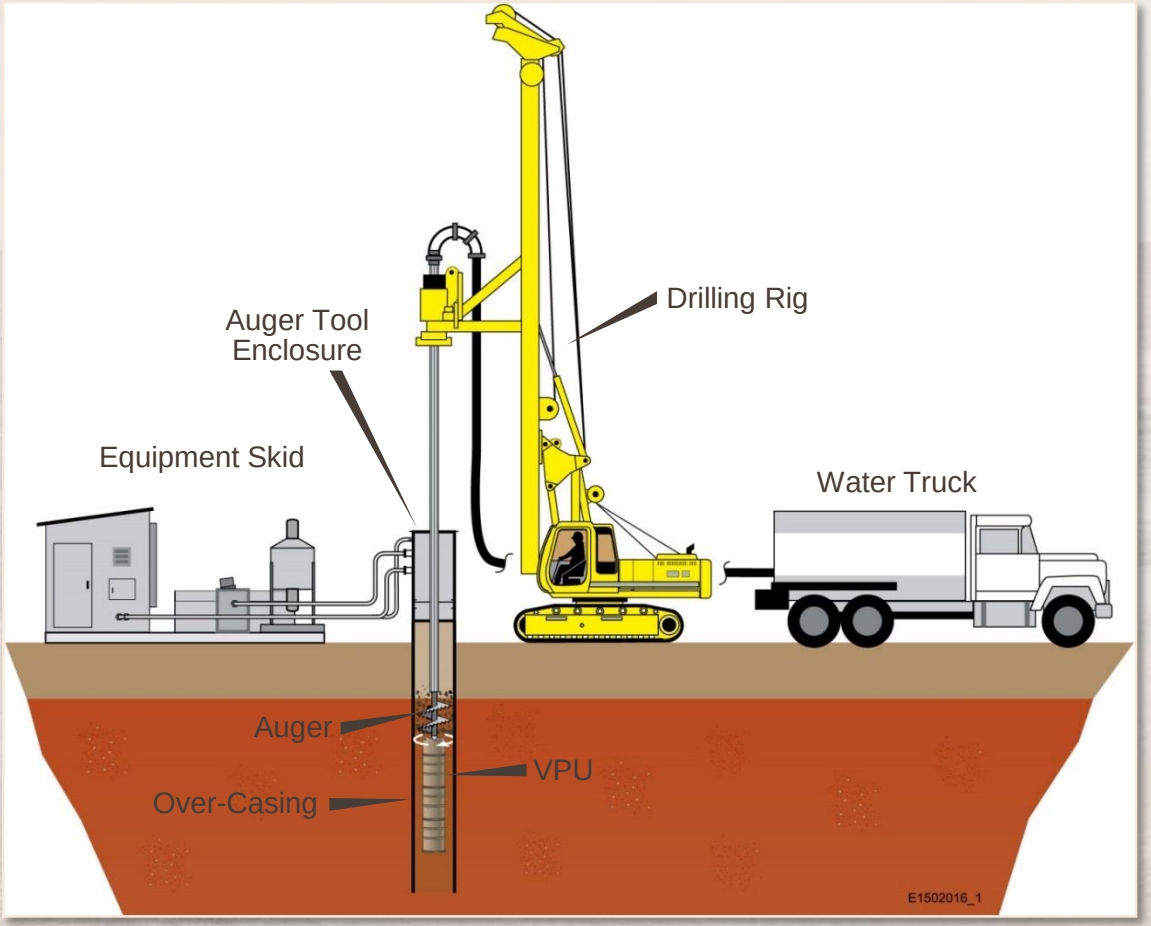
Vertical Pipe Units (VPU) Status

- 94 VPUs; three discovered designs
- 80 over-casings installed last spring
- Method testing and mock-up drills completed; augering began September 28
- Washington Closure Hanford's (WCH) VPU scope includes augering material in 28 over-casings and retrieving 15

VPU auger assembly among installed over-casings

VPU variant identification activity (potholing) was done to identify/verify the type of material used in the construction of VPUs and to verify their locations

VPU Remediation Approach:
In-Situ Size-Reduction and Stabilization (Augering)



In-Situ Size-Reduction and Stabilization Over-Casing Contents

618-10 Burial Ground Summary

- Completing trenches in 2016
- Augering is ahead of schedule; 22 of 28 are complete
  - Remediation of 15 VPUs scheduled
- WCH transition process for the remaining work